

What is claimed is:

1. Method for correcting/adapting terminal errors in a cellular system comprising the steps of:

sending (30) a control/report signal (18) to a network (11) of the cellular system by a user equipment or terminal (12) of the cellular system for initiating setup procedures, said control/report signal (18) is indicative of a version of a bit map supporting error correcting functionalities of the terminal (12);

determining (31) by the network (11) whether new bit map related information is required for completing the setup procedures by the terminal (12);

10 performing (44) the setup procedures at the terminal (12) using instructions contained in a command/information signal (20) while waiting for the new bit map related information from the network (11) for completing said procedures; and

15 completing (56, 58, 62,64) the setup procedures by the terminal (12) using further instructions contained in the command/information signal (20) sent by the network (11), wherein said instructions are configured by the network (11) based on a new bit map signal (24b) generated by the network (11).

2. The method of claim 1, wherein the control/report signal (18) also can contain an international mobile station equipment and software version number (IMEISV).

3. The method of claim 1, wherein the command/information signal (20) is a measurement control signal (20-3) and the step of completing (56, 58, 62,64) the setup procedures comprising the steps of:

configuring by the network (11) and sending (56) said security mode command signal (20-3) to the UE (12); and

25 performing (58) a security mode setup by the terminal (12) using said security mode command signal (20-3).

4. The method of claim 1, wherein the command/information signal (20) is a radio bearer setup signal (20-4), and the step of completing (56, 58, 62,64) the setup procedures comprising the steps of:

configuring by the network (11) and sending (62) said radio bearer setup
5 signal (20-4) to the UE (12); and

completing (64) a bearer setup by the terminal (12) using said radio bearer setup signal (20-4).

5. The method of claim 1, wherein the cellular system is a universal mobile telecommunications system (10).

10 6. The method of claim 5, wherein the network (11) comprises a universal terrestrial radio access network (14) and a core network (16).

7. The method of claim 6, wherein the universal terrestrial radio access network (14) comprises a serving radio network controller (15).

8. The method of claim 7, wherein the command/information signal (20) is a security mode command signal (20-3), which is sent to the terminal (12) by the serving radio network controller (15); said security mode command signal (20-3) is generated by the serving radio network controller (15) after receiving the new bit map signal (24b).

9. The method of claim 7, wherein the command/information signal (20) is a radio bearer setup signal (20-4), which is sent to the terminal (12) by the serving radio network controller (15), said radio bearer setup signal (20-4) is generated by the serving radio network controller (15) after receiving the new bit map signal (24b).

10. The method of claim 7, wherein control/report signal (18) is a RACH RRC connection request signal (18-1), which is sent to the serving radio network controller
25 (15).

11. The method of claim 10, wherein the step of determining (31) by the network (11) whether the new bit map related information is required for completing the setup procedures by the terminal (12) is performed by the serving radio network controller (15) upon receiving and based on the RACH RRC connection request signal (18-1).

5 12. The method of claim 11, after the step of determining (31) by the network (11) if the new bit map related information is required, further comprising the steps of:

sending (32) a FACH RRC connection setup signal (20-1), based on the RACH RRC connection request signal (18-1), to the terminal (12) by the serving radio network controller (15);

10 setting up (34) a connection by the terminal (12) using the FACH RRC connection setup signal (20-1) based on the FACH RRC connection setup signal (20-1); and

sending (36) a DCH RRC connection setup complete signal (18-2) to the serving radio network controller (15) by the terminal (12).

15 13. The method of claim 12, further comprising the steps of:

sending (38) an RRC initial direct transfer signal (18-3) to the universal serving radio network controller (15) by the terminal (12), said RRC initial direct transfer signal (18-3), if it is determined that the new bit map related information is required, contains an international mobile station equipment and software version (IMEISV) number;

sending (40) an RRC initial UE message signal (22) to the core network (16) by the terminal (12), said RRC initial UE message signal (22) contains a request for a new bit map and the international mobile station equipment and software version (IMEISV) number; and

25 sending (42) a measurement control signal (20-2) to the terminal (12) by the serving radio network controller (15).

14. The method of claim 13, wherein the step of performing (44) the setup procedures at the terminal (12), while waiting for the bit map related information from the network (11), is performed by configuring measurement configurations based on the measurement control signal (20-2) by the terminal (12).

5 15. The method of claim 14, after the step of performing (44) the setup procedures at the terminal (12), further comprising the steps of:

delaying (50a) further setup procedures of the terminal (12) until generating the new bit map signal (24b) by the core network (16), if it is determined that said new bit map signal (24b) is required;

10 sending (50) a common ID (IMSI) signal (24a) and the new bit map signal (24b) generated by the core network (16) to the serving radio network controller (15) by the core network (16);

15 determining (52) by the serving radio network controller (15) if the new bit map signal (24b) has to be converted to match the international mobile station equipment and software version (IMEISV) number of the terminal (12); and

converting (56) the new bit map signal (24b) to match the international mobile station equipment and software version (IMEISV) number of the terminal (12) by the serving radio network controller (15).

16. The method of claim 7, after the step of performing (44) the setup procedures 20 at the terminal (12), further comprising the steps of:

delaying (50a) further setup procedures of the terminal (12) until generating the new bit map signal (24b) by the core network (16), if it is determined that said new bit map signal (24b) is required; and

25 sending (50) a common ID (IMSI) signal (24a) and the new bit map signal (24b) generated by the core network (16) to the serving radio network controller (15) by the core network (16).

17. The method of claim 16, wherein the new bit map signal (24b) is generated using a core network protocol block (16a) of the core network (16) and an error database block (16b) of the core network (16).

18. A cellular system utilizing a special procedure for correcting/adapting terminal

5 errors, comprising:

a terminal or user equipment (12), for providing a control/report signal (18) which is indicative of a version of a bit map supporting error correcting functionalities of the terminal (12), responsive to a command/information signal (20) for performing setup procedures of the terminal (12); and

10 a network (11), responsive to said control/report signal (18), for determining if new bit map related information is required for completing the setup procedures by the terminal (12) using said control/report signal (18), for providing said command/information signal (20) to the terminal (12) before said determination using information contained in said control/report signal (18) and after said determination 15 using a new bit map signal (24b) generated by the network (11).

19. The cellular system of the claim 18, wherein the network (11) comprising:

a universal terrestrial radio access network (14), responsive to a common ID (IMSI) signal (24a), to the new bit map signal (24b) and to the control/report signal (18), for determining if new bit map related information is required for completing the 20 setup procedures by the terminal (12) using said control/report signal (18), for providing said command/information signal (20) to the terminal (12) before said determination using information contained in said control/report signal (18) and after said determination using the new bit map signal (24b) generated by the network (11); and

25 a core network (16), responsive to the control/report signal (18), for generating the new bit map signal (24b), for providing the common ID (IMSI) signal (24a) and for providing the new bit map signal (24b) to the universal terrestrial radio access network (14).

20. The method of claim 18, wherein the control/report signal (18) can also contain an international mobile station equipment and software version number (IMEISV).